



PES Environmental, Inc.
Engineering & Environmental Services

SFUND RECORDS CTR
3737-00909

January 19, 1997

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SFUND RECORDS CTR
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3737-00909

486.0103.012

U.S. Environmental Protection Agency
75 Hawthorne Street
San Francisco, California 94105

Attention: Mr. Dick Vesperman

**TRANSMITTAL
ADDITIONAL EVALUATION OF PROPOSED SOIL RELOCATION
FORMER UNITED HECKATHORN FACILITY
RICHMOND, CALIFORNIA**

Dear Mr. Vesperman:

As we discussed with you at a meeting on January 14, 1998 at the Levin Richmond Terminal Corporation (LRTC) offices, PES Environmental, Inc. (PES) has prepared this letter on behalf of LRTC to present additional information related to the proposed soil relocation during grading at the former United Heckathorn facility in Richmond, California. At the meeting, you requested this information to further evaluate the soil containing residual pesticides proposed for onsite relocation.

The former United Heckathorn site has been divided into Areas A through F based on drainage areas, as presented in the *Preliminary Design Submittal* dated October 3, 1997. The proposed site grading prior to placing the final cap will yield approximately 3,400 cubic yards of excess cut soil. This will result from cutting 0.5 to 1.5 feet of soil from the existing ground surface in several areas to achieve the desired surface drainage on the finished grade of the concrete cap. The plans currently call for placing these cut soils into Area A as an engineered fill. The revised contours for Area A were presented to you in PES' letter dated January 14, 1998. Additionally, that letter presented an initial evaluation of the relative pesticide concentrations within the cut soils and those already present in the soil at Area A.

As we discussed, Area A is within the Superfund site and is contiguous with other areas of residual pesticide contamination. Area A will be capped and monitored along with other portions of the site and is subject to deed restrictions and all other long term management controls. It is also understood that residual DDT greater than 1.0 part per million (ppm) in soils is regulated as a State of California designated, non-RCRA hazardous waste.

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During our meeting, you requested additional information on the distribution of DDT in the soils proposed to be cut to assist in your decision regarding the acceptability of relocating the excess cut soils to Area A. The following discussion, coupled with the attached site plans, presents the requested information.

The site characterization data used by PES to evaluate residual DDT concentrations within proposed cut areas were collected by Harding Lawson Associated (HLA) prior to 1986¹. A copy of the HLA site plan showing sample locations and DDT data is attached for reference. As you know, since that time there have been removal activities performed under the direction of HLA in 1986 and Levine-Fricke in 1990 and 1991. There were also clean imported soils, mainly gravel, placed at various locations on the site since 1986 to improve the surface and to prevent disturbance of the residual pesticides. Therefore, it should be noted that the current topographic contours in some areas do not reflect the surface elevations where HLA collected samples. PES used topographic contours prepared in the early to mid-1980s to establish the approximate surface elevations at the time the HLA data was collected and to estimate the amount of clean fill that has been placed on the site since that time.

The attached PES site plan presents:

- (1) Historical soil analytical data collected at the site by HLA that are within the proposed cut areas and within the fill area (Area A);
- (2) Areas of the site where "hot spots" were excavated and removed for off-site disposal in 1986 under the observation of HLA and in 1990 and 1991 under the direction of Levine-Fricke;
- (3) Proposed final surface contours for the upland capping project;
- (4) Proposed depth of cut within each of Zones B, C, D and F; and
- (5) The estimated thickness of clean fill in each of the proposed cut areas.

The proposed depths of cut on the site plan account for the installation of a 6-inch reinforced concrete cap. We did not plot any of the non-relevant historical data such as those data within the HLA and Levine-Fricke excavation areas or data outside of the lateral or vertical zone of soils to be cut. A summary of the data is compiled below.

¹ Harding Lawson Associates, 1986. Interim Remedial Action Measures, Train Scale Site Excavation, Unified Heckathorn Site, Richmond, California. November 4.

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Sample Location	Depth of Sample (feet below 1986 ground surface)	Residual DDT Concentration (ppm)
B21	0.0	42.7
	1.0	43.0
B32	2.0	4.7
B33	0.0	0.24
B34	0.0	7.7
P16	0.0	34.8
P18	0.0	22.3

Cut Areas B, C, D, and F

Area	Approximate Cut Volume (cubic yards)	Sample Location	Depth of Sample (feet below 1986 ground surface)	DDT Concentration (ppm)
B	1400	B7	0.5	54.4
		B8	1.0	<0.1
		B12	0.5	3.7
		B13	0.5	0.2
		B28	0.0	2.3
		B29	0.0	1.3
			2.0	<0.1
		B30	2.0	13
		B31	2.0	1.8
C	1100	B2	0.5	<0.1
		B3	1.0	96.2
		B5A	1.0	9.9
		B11	1.0	265
		P6	0.0	40.6

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Area	Approximate Cut Volume (cubic yards)	Sample Location	Depth of Sample (feet below 1986 ground surface)	DDT Concentration (ppm)
D	500	No samples were collected by HLA within proposed cut area*		
F	375	B9	0.5	1.8
		B25	2.0	<0.1

* The proposed area of cut from within Area D is largely within a zone previously excavated and replaced with clean fill in 1991. DDT concentrations would therefore be expected to be very low to non-detectable from this area.

Presented below are area-by-area average values of depth of cut, thickness of clean fill, and DDT concentrations, as well as the expected cut volume.

Area	Average Depth of Cut (feet)	Average Clean Cover (feet)	Cut Volume (cubic yards)	Average DDT (ppm)
B	0.6	1.0	1400	9.6
C	1.0	0.8	1100	83
D	0.5	0.0	500	no data
F	0.5	0.0	375	1.0

The concentrations of DDT in the relocated soils from Areas B and C are expected to be less than the average concentrations cited above because of the clean fill placed over the previously sampled soils.

After reviewing the HLA data, it appears that the area of highest residual concentrations of DDT is along the top of the embankment on the western side of Area C (i.e., near Boring B11). Soil data from this area indicates that residual DDT concentrations range up to 450 ppm in surficial soil. Soils from this area will not be relocated to Area A, but will remain in Area C and be capped.

We trust that this provides you with sufficient information to approve the proposed plan to relocate soils on-site during the grading process and as part of the final design. We look forward to your response.

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Please call either of the undersigned with any questions.

Very truly yours,

PES ENVIRONMENTAL, INC.

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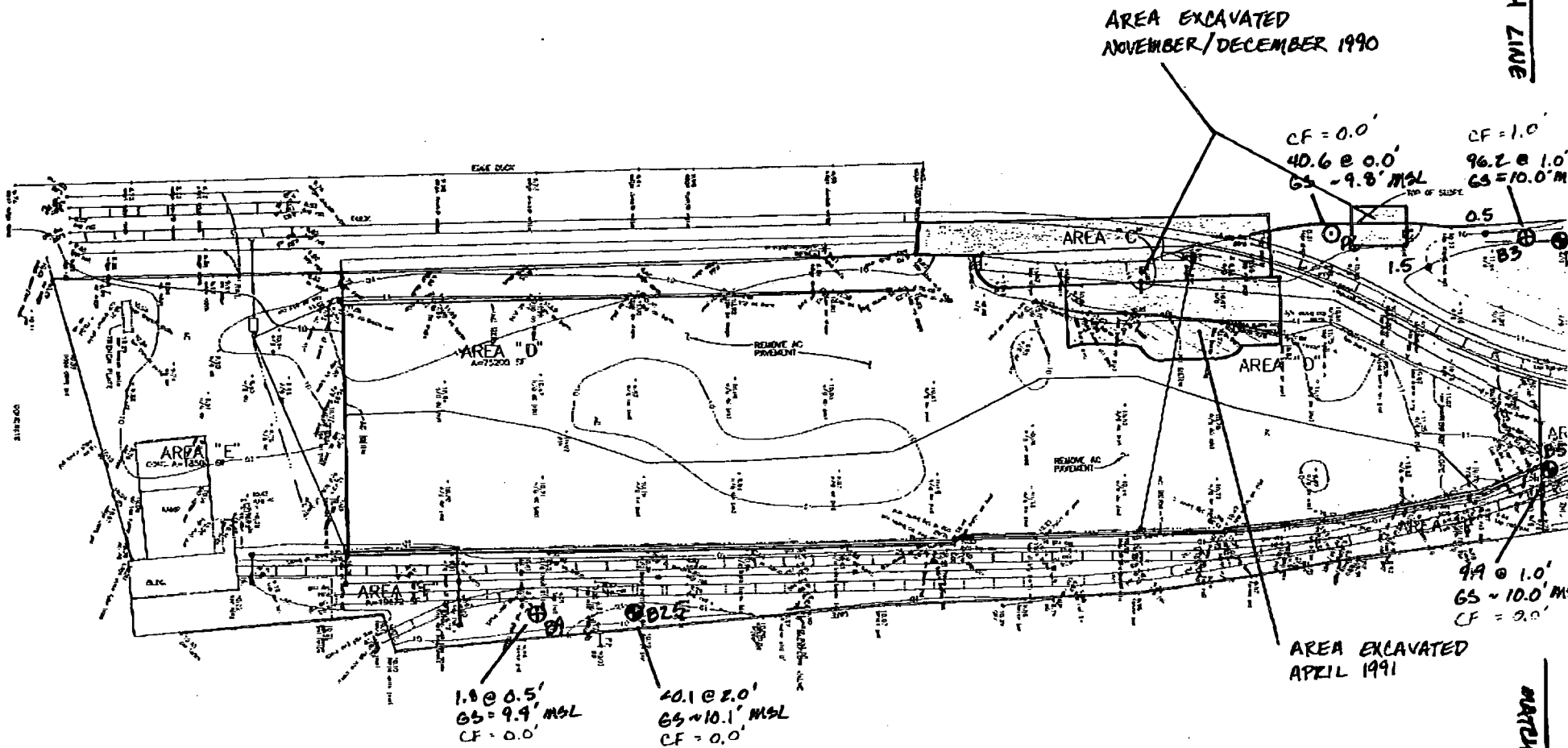
William W. Mast, R.G.
Senior Engineer

DRAFT

William F. Frizzell, P.E.
Principal Engineer

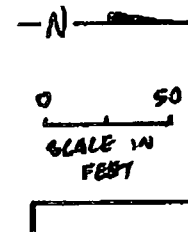
Attachment: Site Plan Excerpted from 1986 HLA Report
PES Site Plan with Proposed Cut and Fill Information

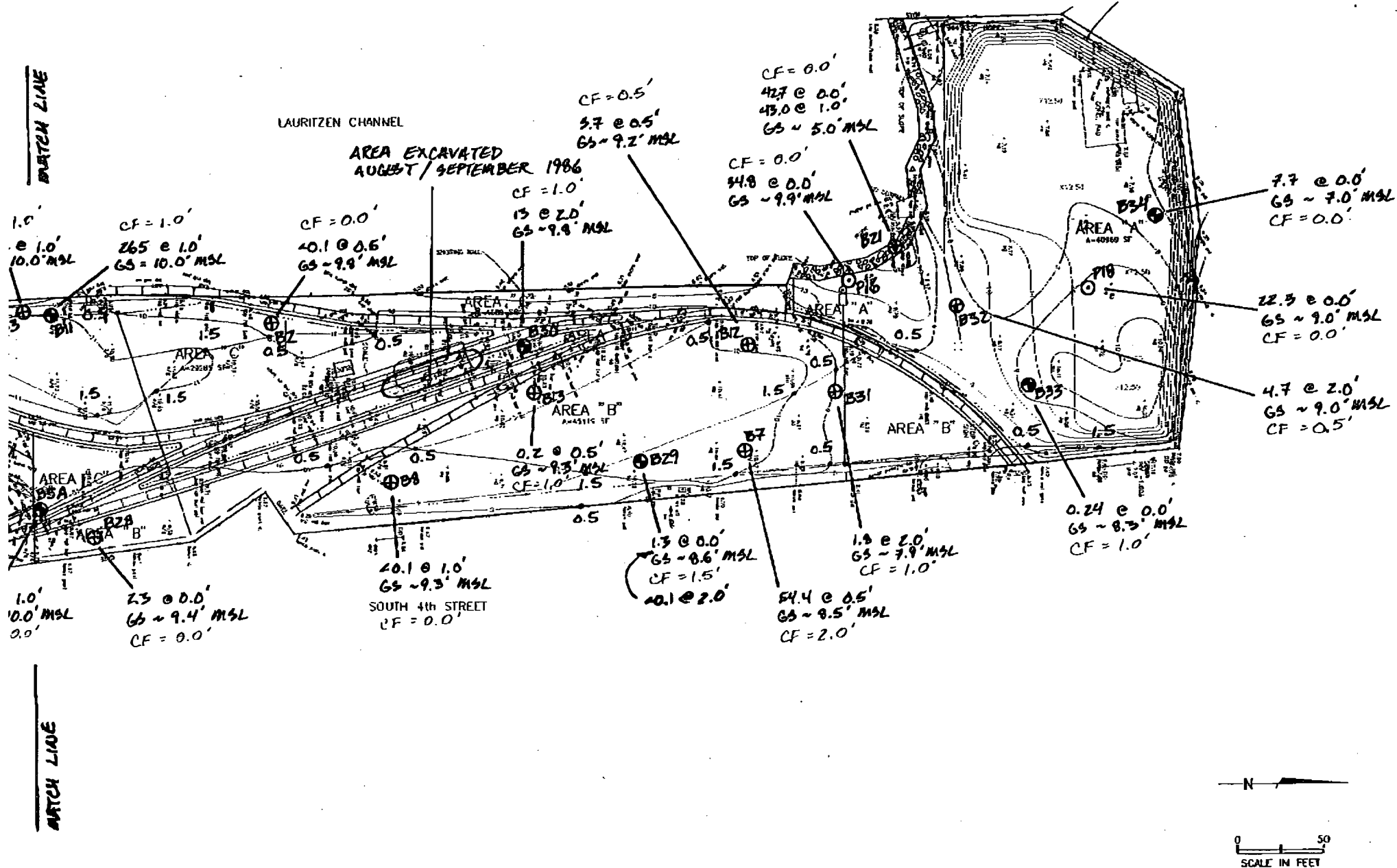
cc: Mike McCoy, LRTC
Bill Buffalow, LRTC
Keith Howard, Cooper White & Cooper
Andy Lincoff, EPA
Robert Feather, DTSC
Arun Roy, DTSC
Dan Welsh, U.S. Fish & Wildlife
Helen Hillman, NOAA
Laurie Sullivan, NOAA
Bob Binsacca, AN West




EXPLANATION

- TEST PIT LOCATION (HARDING LAWSON ASSOCIATES, 1986)
 - ⊕ SOIL BORING LOCATION (HARDING LAWSON ASSOCIATES, 1986)
 - ⊕ MONITORING WELL LOCATION (HARDING LAWSON ASSOCIATES, 1986)
- 1.8 @ 0.5' DDT CONCENTRATION IN MG/KG (PPM)
+ DEPTH OF SAMPLE IN FEET
BELOW GROUND SURFACE





EXPLANATION

- ⊙ TEST PIT LOCATION (HARDING
LAWSON ASSOCIATES, 1986)
- ⊕ SOIL BORING LOCATION (HARDING
LAWSON ASSOCIATES, 1986)
- ⊕ MONITORING WELL LOCATION (HARDING
LAWSON ASSOCIATES, 1986)
- 1.8 @ 0.5' DDT CONCENTRATION IN MG/KG (PPM)
‡ DEPTH OF SAMPLE IN FEET
BELOW GROUND SURFACE
- <0.1 DDT NOT DETECTED AT OR ABOVE
LABORATORY REPORTING LIMIT INDICATED
- 1.5' PLANNED DEPTH OF CUT IN FEET FOR
UPLAND CAPPING REMEDIATION PROJECT
- GS = 9.9' MSL ■ APPROXIMATE GROUND SURFACE
ELEVATION IN FEET MSL IN 1986
- CF = 1.0' ESTIMATED THICKNESS OF CLEAN FILL
IN FEET, PLACED AFTER 1986
-  EXTENT OF SOIL EXCAVATION PERFORMED
BY LEVINE, FRICKE (1990, 1991) AND
HARDING LAWSON ASSOCIATES (1986)